

Section A – Multiple Choice Questions – 1 mark each

All questions must be answered in the answer sheet provided at the front of this exam booklet

Question 1

To calculate 20% of 250, you would use

A $\frac{20}{250} \times 100 =$

B $\frac{20}{100} \times 250 =$

C $\frac{350}{20} \times 100 =$

D $\frac{100}{20} \times 250 =$

E $\frac{1}{100} \times \frac{20}{250} =$

Question 2

A lottery winner decides to invest 60,000 in an investment scheme in which 16%p.a simple interest is given. At the end of 10 years his money will have grown to:

- A 94000
- B 9600
- C 96000
- D 600000

Question 3

If $I = \$64.62$, $r = 11.2\%$ p.a simple interest, $T = 26$ months, the principal to the nearest \$ would be:

- A \$16
- B \$267
- C \$262
- D \$266

Question 4

\$8800 invested at 6.47%p.a. compounded annually over 8 years will amount to:

- A $8800(1 + 6.47)^8$
- B $8800(1 + 0.0647)^8$
- C $8800(1 + 6.47^8)$
- D $8800(1 + 0.0647^8)$

Question 5

A loan of 10 000 is made at 9.9% p.a, compounded quarterly over a period of 8 years. The interest accrued would be:

- A $10\,000(1 + 0.099)^8 - 10\,000$
- B $10\,000(1 + 0.011)^8 - 10\,000$

C $10\,000(1 + 0.099)^{20} - 10\,000$

D $10\,000(1 + 0.011)^{20} - 10\,000$

Question 6

IN 3 years time, a \$1500 bed, assuming an inflation rate of 4.4% p.a, will cost, to the nearest dollar:

- A 1700
- B 1706
- C 1707
- C 1704

Question 7

To obtain c from $\frac{c}{9} - 6$ you would need to:

- A Add 6, then divide by 9
- B Subtract 6, then multiply by 9
- C Multiply by 9, then add 6
- D Add 6, then multiply by 9

Question 8

The equation $10 - 5r = -2$ has the solution:

- A -2.4
- B 2.4
- C 1.6
- D -1.6

Question 9

The equation $\frac{10x+2}{4} = -2$ has the solution:

- A 1
- B 0.6
- C -0.6
- D -1

Question 10

Solve: $8x + 2 = 6x + 4$

- A 2
- B 1
- C -1
- D -2

Question 11

The line with equation $x = 6$ has

- A a gradient of -6
- B a gradient of 0
- C a gradient of 6
- D an undefined gradient

Question 12

Which of these graphs would be the steepest?

- A $y = 6x + 15$
- B $y = 6x - 15$
- C $y = x - 15$
- D $y = x + 6$
- E $y = 15x + 6$

Question 13

The coordinates of two points that lie on the line $6y = 2x - 12$ are:

- A (6, 0) and (0, -2)
- B (6, 0) and (0, 2)
- C (-6, 0) and (0, 2)
- D (5, 0) and (0, -2)

Question 14

The coordinates of a point that lines on the line $y = 5x - 2$ are:

- A (-1, -7)
- B (0, 2)
- C (8, 2)
- D (3, 1)

Question 15

The equation of a linear graph with y-intercept (0, 6) and gradient of 7 is:

- A $y = 7x + 6$
- B $y = 6 - 7x$
- C $7x - y = 6$
- D $7x + y = 6$

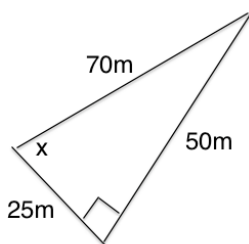
Question 16

Which of the following statement of incorrect?

- A. The hypotenuse is the longest side in a right-angled triangle
- B. The hypotenuse is opposite the right angle
- C. The shorter side next to the reference angle is called the opposite side
- D. The shorter side next to the reference angle is called the adjacent side

Question 17

In this triangle tan x is:

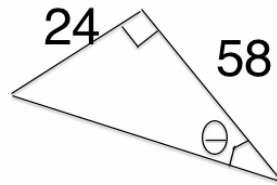


- A $\frac{1}{2}$

- B $\frac{14}{5}$
- C $\frac{2}{1}$
- D $\frac{5}{7}$

Question 18

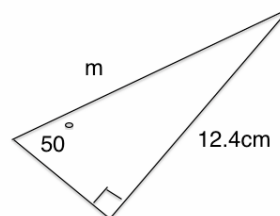
The value of θ in this diagram could be found by using the equation



- A $\theta = \tan^{-1}\left(\frac{1}{2}\right)$
- B $\theta = \tan^{-1}\left(\frac{2}{1}\right)$
- C $\theta = \cos^{-1}\left(\frac{1}{2}\right)$
- D $\theta = \cos^{-1}\left(\frac{2}{1}\right)$

Question 19

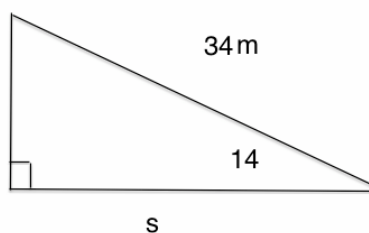
The value of m in this diagram could be found by using the equation



- A $m = \frac{12.4}{\sin 50^\circ}$
- B $m = \frac{\sin 50^\circ}{12.4}$
- C $m = 12.4 \times \sin 50^\circ$
- D $m = \frac{12.4}{\cos 50^\circ}$

Question 20

The correct length, to one decimal place of the side marked s is:



- A. 32.9
- B 11.6
- C. 8.2
- D 7.8